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BUB/CTE/2021-22/CA-20,40mm

Date: 15-11-2021

1.TEST REPORT OF COARSE AGGREGATES (20mm & 40 mm)

Sub: Testing of Coarse Aggregates 20mm & 40mm.
{Project*: Construction of Rajarajeshwari School (Kalpana) Building in Ward No.17, J.P.Park}
Ref: Letter No. Testing/BUB/2021-22, dated 10-11-2021
Sample supplied to lab by: M/s.M.R.Infra, No.123/30, 4th Floor,
1st Main Road, Rajajinagar Industrial Town,
Bangalore-560010.
Report required for: Executive Engineer, Project Division, RR Nagar Zone, BBMP, Bangalore.
Technical Reference: IS: 2386 & IS 383-1970 (Reaffirmed on 2007)

A.20MM DOWN SIZE COARSE AGGREGATES.

Table –1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	20 mm Sample	Single size	Graded
40 mm	**100.00**	100.00	100.00
20 mm	**97.40**	85-100	95 - 100
10 mm	**38.00**	0 - 20	25 - 55
4.75 mm	**Nil**	0 - 5	0 - 10

B. 40 MM DOWN SIZE COARSE AGGREGATES

TABLE - 1.2 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	*Single size*	*Graded*
40mm	**96.30**	85-100	95 – 100
20mm	**61.00**	0 -20	30- 70
10mm	**24.00**	0 -5	10- 35
4.75mm	**Nil**	------	0 - 5

*As Furnished by Client.
The Results relate only to the items tested.

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Date: 15-11-2021

TABLE 1. 3 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Tests Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2007)
1.	Flakiness Index	As above	**14.20%**	Not to exceed 25 %
2.	Crushing value	---„----	**26.30%**	Not to exceed 45 % for concrete other than for wearing surfaces ,and 30% for concrete for wearing surfaces

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JNANA BHARATHI
BANGALORE - 560 056

BUB/CTE/2021-22/M-SAND

Date: 15-11-2021

1. TESTING OF FINE AGGREGATES (ROBO SAND):

Sub: Testing of Robo Sand/M-Sand.
{Project*: Construction of Rajarajeshwari School (Kalpana) Building in Ward No.17, J.P.Park}
Ref: Letter No. Testing/BUB/2021-22, dated 10-11-2021
Sample supplied to lab by: M/s.M.R.Infra, No.123/30, 4th Floor,
1st Main Road, Rajajinagar Industrial Town,
Bangalore-560010.
Report required for: Executive Engineer, Project Division, RR Nagar Zone, BBMP, Bangalore.
Technical Reference: IS 2386 and IS 383-1970 (Reaffirmed on 2007)

TABLE - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	**Percentage Passing**	Specification as Per IS: 383-1970(Reaffirmed 2007) **Percentage Passing**				Remarks
		Zone-I	**Zone-II**	**Zone -III**	**Zone -IV**	
10.00	**100.00**	100	100	100	100	The Sample Conforms to Grading **Zone-II**
04.75	**94.70**	90-100	90-100	90-100	95-100	
02.36	**86.30**	60-95	75-100	85-100	95-100	
01.18	**74.20**	30-70	55-90	75-100	90-100	
600. mic	**43.10**	15-34	35-59	60-79	80-100	
300.mic	**23.60**	5-20	8-30	12-40	15-50	
150.mic	**7.80**	0-20	0-20	0-20	0-15	

TABLE 1.2 ;

Sl No	Test Conducted	Sample	Results	Requirements as Per IS. Specification IS :383-1970 (Reaffirmed 2007)
1.	Specific Gravity	001	**2.624**	----------

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The Results relate only to the items tested

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JNANA BHARATHI
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Date: 15-11-2021

BUB/CTE/2020-21/Brick

1. TEST REPORT ON BRICKS:

Sub: Test Report on Bricks.
{Project*: Construction of Rajarajeshwari School (Kalpana) Building in Ward No.17, J.P.Park}

Ref: Letter No. Testing/BUB/2021-22, dated 10-11-2021

Sample supplied to lab by: M/s.M.R.Infra, No.123/30, 4th Floor,
1st Main Road, Rajajinagar Industrial Town,
Bangalore-560010.

Report required for: Executive Engineer, Project Division, RR Nagar Zone, BBMP, Bangalore.

Technical Reference: IS:1077-1992

I. WATER ABSORPTION TEST:

Sl No	Brand Name	Water absorption %	Average value %	Normal Values
1	001	8.90	**8.92%**	As per IS:1077-1992 water absorption shall not be more than 20.00%
2	002	8.80		
3	003	8.60		
4	004	9.20		
5	005	9.10		

II. COMPRESSIVE STRENGTH :

Sl No	Brand Name	Compressive Strength, N/Sq.mm	Average value N/Sq.mm	Normal Values
1	001	6.10	**5.96**	--------
2	002	6.00		
3	003	5.90		
4	004	5.80		
5	005	6.00		

III. EFFLORSCENCE:

Sl No	Brand	Efflorescence	Explanation as per IS: 3495:1992(Part-II)
1	001	Nil	Not more than 10 % of the exposed area of the brick is covered with a thin deposit of salts.
2	002	Nil	
3	003	Nil	
4	004	Nil	
5	005	Nil	

*As furnished by Client.

The Results relate only to the items tested.

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BUB/CTE/2020-21/Cement **Date: 15-11-2021**

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Construction of Rajarajeshwari School (Kalpana) Building in Ward No.17, J.P.Park}

Ref: Letter No. Testing/BUB/2021-22, dated 06-11-2021

Sample supplied to lab by: M/s.M.R.Infra, No.123/30, 4th Floor,
1st Main Road, Rajajinagar Industrial Town,
Bangalore-560010.

Report required for: Executive Engineer, Project Division, RR Nagar Zone, BBMP, Bangalore.

Technical Reference: IS 12269-1987

PHYSICAL TESTS ON CEMENT

Brand* : RAMCO
Grade * : 53
Type * : OPC
Date : 07-11-2021 to 14-11-2021

SL No	Name of Test	Results	Requirements as per IS 12269-1987
		Cement Sample	
1	Initial setting time	**146 min**	Shall not be less than 30 min
2	Final setting time	**255 min**	Shall not be more than 600 min
3	Fineness – Specific surface of cement (by Blaine's air permeability method)	**2842 Sq.cm/g**	Shall not be less than 2250 Sq.cm/g
4	Soundness test(by Le-Chatelier's method)	**1.30 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results) b) 7 days (average of three results)	**28.60 N/ Sq mm** **41.50 N/Sq mm**	Shall not be less than 27 N/Sqmm Shall not be less than 37N/Sqmm

*As furnished by Client.

The Results relate only to the items tested.

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BUB/CTE/2021-22/Steel-

Date: 15-11-2021

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 8, 10, 12, 16, 20 and 25mm,
{Project*: Construction of Rajarajeshwari School (Kalpana) Building in Ward No.17, J.P.Park}

Ref: Letter No. Testing/BUB/2021-22, dated 06-11-2021

Sample supplied to lab by: M/s.M.R.Infra, No.123/30, 4th Floor,
1st Main Road, Rajajinagar Industrial Town,
Bangalore-560010.

Report required for: Executive Engineer, Project Division, RR Nagar Zone, BBMP, Bangalore.

Technical Reference: IS 1786-2008.

Brand*: Om Sai, TMT Steel, FE 550D Grade

A. PHYSICAL TESTS
TABLE – 1.1

SL No	Details	For 08 mm		For 10mm		For 12mm	
		Test Results	Min Req. as per IS 1786-2008	**Test Results**	Min Req as per IS 1786-2008	**Test Results**	Min Req as per IS 1786-2008
01	Observed diameter of bar	**8.0mm**	8.0mm	**10.0mm**	10.0mm	**12.0mm**	12.0mm
02	Observed Wt/m Length **Kg/m**	**0.401**	0.363	**0.623**	0.567	**0.894**	0.834
03	Proof stress/Yield stress, fy , **N/mm^2**	**618.0**	550.0	**621.0**	550.0	**630.0**	550.0
04	Bend/ Re bend Test	**Ok**	---	**Ok**	---	**Ok**	---
05	Percentage of Elongation, %	**21.00**	14.50	**20.80**	14.50	**20.20**	14.50
06	Ultimate Tensile Strength **N/mm^2**	**719.0**	600.0	**722.0**	600.0	**729.0**	600.0

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Date: 15-11-2021

TABLE – 1.2

SL No	Details	For 16 mm		For 20mm		For 25mm	
		Test Results	Min. Req as per IS 1786-2008	**Test Results**	Min. Req as per IS 1786-2008	**Test Results**	Min.Req. as per IS 1786-2008
01	Observed diameter of bar	**16.0mm**	16.0mm	**20.0mm**	20.0 mm	**25.0mm**	25.0 mm
02	Observed Wt/m Length **Kg/m**	**1.586**	1.483	**2.480**	2.366	**3.862**	3.697
03	Proof stress/Yield stress, fy , **N/mm^2**	**610.0**	550.0	**633.0**	550.0	**619.0**	550.0
04	Bend/ Re bend Test	**Ok**	---	**Ok**	---	**Ok**	---
05	Percentage of Elongation, %	**21.40**	14.50	**19.80**	14.50	**20.80**	14.50
06	Ultimate Tensile Strength **N/mm^2**	**708.0**	600.0	**732.0**	600.0	**724.0**	600.0

*As furnished by Client.

The Results relate only to the items tested.

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